Name: Edwin Juarez rosales
Working Title:
Payroll Title: CMPTL AND DATA SCI RSCH
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I enthusiastically nominate Edwin Juarez Rosales for the Annual Exemplary Staff of the Year 2020 award. Edwin joined UCSD in June 2017 as a bioinformatics programmer, and since then he quickly established himself as a tireless worker, a knowledgeable collaborator, a skilled developer, and an effective communicator. Going far beyond his job responsibilities, he stands out as a bridge between our lab and the many communities we engage with, from collaborating research labs in and around UCSD, to members of the Moores Cancer Center Molecular Tumor Board, to disadvantaged high school and college students in need of mentorship. Edwin has the rare talent of being able to understand the unique needs of each community and to provide help in the ways that are most needed.

Edwin has made great strides in absorbing the large knowledge base and collection of tools that our lab has accumulated in almost 20 years of research, and has shown himself able to apply these to the scientific requirements of collaborating labs. He is a creative multi-level thinker, able to appreciate, discuss, and contribute at all levels of detail. These skills have allowed him to represent our lab in collaborations with researchers at the Sanford Burnham Institute for Regenerative Medicine, the Moores Cancer Center, and several UCSD School of Medicine labs. In each case he has immersed himself in a collaborator's research, taking pains to understand in detail their needs and objectives, and designing solutions that follow the best practices of both scientific research and software development. Understanding that many scientists are not experienced programmers, he has designed electronic notebooks that describe each step of an analysis and present them in a way that is accessible to researchers at all levels of computational sophistication. To provide an even wider impact, Edwin has generalized his work where possible so that any researcher working on a similar problem can use his solution. He has published these on our lab's online GenePattern software platform, making them freely available to the worldwide community of researchers.

Providing opportunities for those from disadvantaged and diverse backgrounds is one of Edwin's passions. Beginning in 2018, he has single-handedly led our lab's partnership in the ENgaging LAtino Communities for Education (ENLACE) consortium, an under-represented minorities exchange between UCSD and Baja universities and high schools. He also leads our participation in the UCSD Summer Training Academy for Research Success (STARS) program, an eight-week summer research academy for community college students, undergraduate students, recent college graduates, and masters students. Through these programs, Edwin has supervised and mentored several students every summer, providing an exposure to current research in cancer genomics and to the state of the art analysis tools that are being used to address them. Students begin by learning the basics of the field and by the end of the summer, work on a project that solidifies the research skills they have learned.

Edwin's drive to spread education and research opportunities also led to his leading the development and delivery of a day-long workshop teaching the principles of single-cell analysis, one of the most promising new technologies in genomics research, to graduate students, postdocs, and staff researchers from across UCSD and collaborating laboratories. Due to the success of this workshop and continuing demand, it will be repeated in various places in and around the UCSD campus in the coming months. His extracurricular mentorship roles include helping teach a course in the Python programming language at the School of Global Policy and Strategy and helping the student chapter of the UCSD Society of Hispanic Professional Engineers during their Graduate Road Map to increase representation of this underserved population through understanding the road to graduate school.

I highly recommend Edwin for this award as a member of the UCSD staff who highly exemplifies the principles of community, inclusive excellence, commitment to diversity, and academic achievement.